

REMARKS

Claims 8-10 and 13-14 are now pending in this application. Claims 7-12 are rejected. Claims 7, 11, and 12 are cancelled herein. Claims 1-6 are previously cancelled. New claims 13-14 are added. Claims 8 and 10 are amended herein to clarify the invention.

Subject Matter of the Claimed Inventions

The claims have been amended to include a roller bearing unit having a pulsar ring and a cover. The roller bearing unit also includes an outer ring, one or more inner rings, and an inner shaft. At least one of the inner rings has a shoulder portion, a step portion, and an inclined surface.

In an example embodiment, a pulsar ring 24 is fitted at a cylindrical surface 20a of a shoulder portion 20. A cover 25 is fitted at an end portion of an outer ring 2. The cover includes an annular portion 26, a cylindrical portion 27 and a connection portion 26a connecting the annular portion and the cylindrical portion. The annular portion 26 is provided adjacent to a detection surface of the pulsar ring 24, and extends between a radially outward direction and a radially inward direction. The cylindrical portion 27 is formed along an axial direction.

Of significance are the locations of the connection portion and the cylindrical portion. In an example embodiment, the connection portion 26a is located in proximity to an inclined surface 21b of the bearing unit's inner ring 7. The cylindrical portion 27 is located so that its inner diameter is smaller than the diameter

of the inner ring shoulder portion's cylindrical surface 20a, and so that its outer diameter is larger than the diameter of the inner ring step portion's cylindrical surface 21a.

Section 103 Rejections and the Cited Art

Claims 7-12 are rejected under 35 USC 103(a) as being unpatentable over Ishida et al. (U.S. Patent No. 6,478,471) in view of Johnston et al. (U.S. Patent No. 6,622,377). Claims 7-12 also are rejected under 35 USC 103(a) as being unpatentable over Sawai et al. (U.S. Patent No. 6,113,279) in view of Johnston et al. (U.S. Patent No. 6,622,377).

Ishida et al. disclose at Figures 1 and 3 therein, an inner ring 3 of a wheel support bearing unit having a shoulder portion and a step portion, where the step portion is inclined, and where a vertical surface connects the shoulder and step portions.

Sawai et al. disclose at Figure 1 therein, a shoulder, an inclined step portion, and an inclined surface connecting the shoulder and the step portion.

Johnston et al. disclose a tool 56 having a geometry for mating a chamfered outer surface 70 of an inner bearing member 20 (Col. 4, lines 5-16).

None of Ishida et al., Sawai et al., or Johnson et al. disclose a roller bearing unit which includes a cover fitted to an end of an outer ring and adjacent to a pulsar ring. Further, none of Ishida et al., Sawai et al., or Johnson et al. disclose such a

roller bearing unit where the cover has portions disposed relative to an inner ring's step portion and inclined surface.

The Claims Distinguished

Independent claims 8 and 10 each distinguish over the art discussed above based at least upon the following claim limitations:

- **a cover attached and fitted to an end portion of the outer ring,** wherein the cover comprises an annular portion, a cylindrical portion and a connecting portion ..., **the connecting portion disposed in proximity to said one inner ring step portion's inclined surface,** and wherein the **cylindrical portion has an inner diameter smaller than** the diameter of said one inner ring shoulder portion's outer peripheral surface and the cylindrical portion has **an outer diameter larger than** the diameter of said one inner ring step portion's cylindrical surface.

It is respectfully submitted that the cited art discussed above does not disclose a cover attached and fitted to an end portion of a bearing unit's outer ring. It also is respectfully submitted that the art discussed above does not disclose a cover having a connecting portion located proximally to an inclined surface of a bearing unit inner ring's inclined surface. It is further respectfully submitted that the art discussed

above does not disclose a cover having a cylindrical portion with an inner diameter larger than the diameter of an inner ring's step portion, nor disclose a cover having a cylindrical portion with an outer diameter smaller than the diameter of an inner ring's shoulder portion.

Claim 9 depends from claim 8 and distinguishes over the cited art for the same reasons as discussed above for claim 8.

New claim 13 is an independent claim which includes similar limitations as those limitations now added by amendment to claims 8 and 10. Note that claim 13 recited a shoulder portion's cylindrical surface, instead of its outer peripheral surface. Also note that the end portion of the outer ring where the cover is attached is further specified as being at the one axial direction side of the inner shaft.

New claim 14 depends from claim 13 and distinguishes over the cited art for the same reasons as discussed above for claim 13.

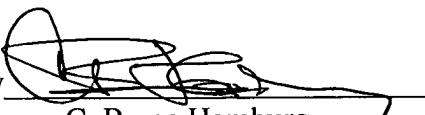
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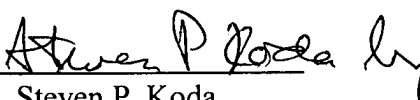
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In light of the foregoing, the application is now believed to be in proper form
for allowance of all claims and notice to that effect is earnestly solicited.

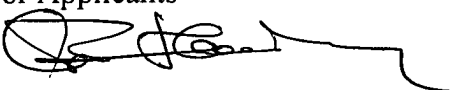
Respectfully submitted,

JORDAN AND HAMBURG LLP

By 
C. Bruce Hamburg
Reg. No. 22,389
Attorney for Applicants

By 
Steven P. Koda
Reg. No. 32,252
Attorney for Applicants

Jordan and Hamburg LLP
122 East 42nd Street
New York, New York 10168
(212) 986-2340


Reg No 32,252

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